DEPARTMENT OF
HEALTH AND ENVIRONMENTAL SCIENCES

Waste Management Division
Hazardous Waste Program
406/444-1430

STATE OF MONTANA

OFFICE LOCATION: 2209 PHOENIX AVE. HELENA, MONTANA

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March 8, 1995

Information Request
Certified Mail

Mr. Jon Nickel
Environmental Supervisor
ASARCO, Inc.
P.O. Box 1230
East Helena, MT 59635

Subject: Hazardous Waste Inspection Report

Enclosed is our report for the January 5, 1995, hazardous waste inspection.

The Department is requesting additional information due to concerns about regulatory compliance. The issues and the required response for each are as follows:

1. ASARCO generates filter cake at the HDS building. Spilled filter cake was accumulating on the ground - outside of the building. Storage of a secondary material in this manner is not consistent with legitimate recycling.

   ASARCO must provide analytical results of the filter cake to show if it exceeds the regulatory levels for a characteristic hazardous waste.

2. ASARCO previously has used plant water for dust suppression purposes. We understand, from you, that this plant water would likely test hazardous for certain heavy metals. Analytical data that has been collected for EPA's Water Program show that plant water had high levels of arsenic. ASARCO's 1983 application for a groundwater discharge permit does not allow ASARCO to use hazardous wastewater for dust suppression purposes as stated in ASARCO's August 16, 1994, letter to EPA.

   ASARCO must provide data indicating which days plant water was used for dust suppression purposes along with analytical data to show if the levels of arsenic, lead and cadmium would have exceeded the regulatory levels for a characteristic hazardous waste.

3. We understand, from you, that ASARCO does not accept manifested wastes. We also understand that ASARCO has received and smelted secondary materials which apparently contain precious metals. Several of the materials found in ASARCO's "Master Index of Material Safety Data Sheets" or ASARCO's "November 1994 Year-to-Date Derivation of Metals Report" have names that lead us to believe that precious metals recovery is occurring. These include, from the material safety data sheets: Kodak slag from Eastman Kodak, photographic paper ash from Sabin Metals Corp., precious metals concentrate from Precious Metals Mines, silver from Pyromet, silver anvil concentrate from Silver Anvil Engineering, and Yellowknife carbon from ASARCO. These also include, from the derivation of metals report: gold bearing carbon, diversified/au/ag bearing silica, metals research/au bearing carbon, au bearing si ore, solar cells scrap, Sipi metals dust, Enviro-Chem film A, available metals dust, precious metal bearing slag, Striker-Bennett au/ag concentrate, and precious metals ag concentrate. Additionally, ASARCO's Summary of Precious Metals Report, dated March 11, 1994, indicates eleven separate file numbers labelled as "precious metals".

   ASARCO must identify if any of these secondary materials would be classified as hazardous waste. ASARCO must provide documentation of compliance with ARM 16.44.306 (40 CFR part 266.70) for recyclable materials utilized for precious metal recovery. The requirements of these rules include manifesting. ASARCO must provide documentation as to how each of the materials listed above fits into the regulatory scheme, i.e. ARM 16.44.302 and/or ARM 16.44.306.

4. ASARCO accepts for smelting items such as arsenical dust and cadmium calcine from other ASARCO facilities, based on information contained in ASARCO's "Master Index of Material Safety Data Sheets". EPA interpretations have indicated that if wastes contain hazardous constituents not present in the analogous raw material and that serve no purpose in the manufacture of the product, then that process constitutes treatment or disposal rather than legitimate recycling.

   ASARCO must provide analytical data regarding arsenic/cadmium concentrations in the arsenical dust/cadmium calcine versus arsenic/cadmium concentrations in virgin ores. If concentrations of arsenic/cadmium are higher in the dust/calcine materials than in the virgin ores, then ASARCO must provide analytical data or apply knowledge to see if these

materials would exceed the regulatory levels for a characteristic hazardous waste.

5. ASARCO appears to be accepting materials from companies that operate hazardous waste TSDFs, based on information contained in ASARCO's "Master Index of Material Safety Data Sheets" or ASARCO's November 1994 Year-to-Date Derivation of Metals Report. For instance, ASARCO lists diatomaceous earth filters from Van Waters & Rogers, Drew sweeps and prepared sweeps from Drew Resources, and residue and CRT/TV from Encycle/Texas.

   ASARCO must identify if any if these materials would be classified as hazardous waste. ASARCO must include documentation that these materials were not manifested to a hazardous waste TSDF as a listed hazardous waste and/or provide documentation that these materials were no longer classified as hazardous waste when they were shipped from these companies to ASARCO.

6. During our tour, we observed remnants of CRT/TV tubes that had been used as feedstock. We also note that CRT/TV tubes appear on the Derivation of Metals Report. If the CRT/TV tubes are a spent material, then they must be stored according to hazardous waste storage regulations - assuming these tubes would test hazardous. If the tubes are considered to be used or reused as ingredients or as effective substitutes for commercial products, then ARM 16.44.302(5) would apply. Preamble language in *the Federal Register, 50 FR 619 (January 4, 1985)*, states that *when distinct components of the material are recovered as separate end products (i.e., recovering lead from scrap metal in smelting operations), the secondary material is not being used, but rather reclaimed and thus, would not be excluded under this provision.* This FR cite refers to ARM 16.44.302(5)(a)(i). Furthermore, the preamble language (50FR 620) gives examples where the recycled materials are substituting for other commercial products and states that ... *material values are not being recovered from them.* This FR cite refers to ARM 16.44.302(5)(a)(ii). It is our understanding that the CRT/TV tubes are smelted to reclaim or recover lead value. Therefore, ARM 16.44.302(5) would not apply and the CRT/TV tubes would be subject to full hazardous waste regulation - again, assuming these tubes would test hazardous.

   ASARCO must provide its' rationale as to how this material fits into the regulatory scheme, i.e. ARM 16.44.302.

A written response to the above items is required within 45 calendar days from receipt of this letter. The response should include assurances from ASARCO that the potential violations noted above will be, or have been, addressed. The State and/or EPA will then evaluate the response to determine if further actions are warranted.

Please be aware that the burden of proof to show that recycling activities are legitimate fall upon the generator (ARM 16.44.302(6)). Reference is made to the Federal Register preamble (50 FR 642) which states that ... *if respondents in enforcement actions raised a claim that a particular secondary material was not a solid waste (or was conditionally exempt from regulation) because it was recycled in a particular manner then they had the burden of proof to show that they were indeed recycling in that way ... the regulations presume that hazardous secondary materials stored before recycling are hazardous wastes.*

Thank you for your cooperation and assistance during our inspection. Please contact us if you have questions.

Sincerely,

Richard Knatterud, P.E.
Hazardous Waste Program

cc: S. Wallace - EPA Helena
P. Montgomery - EPA Helena
ASARCO generator file #2

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
Waste Management Division
Hazardous Waste Program

FIELD INVESTIGATION REPORT

SITE: ASARCO

EPA ID#: MTD006230346

LOCATION: East Helena

DATE & TIME: January 5, 1995 (8:30 a.m. to 12:30 p.m.)

CONTACT: Jon Nickel

INSPECTION TEAM: Richard Knatterud (MTDHES)
Stephanie Wallace (EPA)
Paul Montgomery (EPA)

PURPOSE: Hazardous Waste Inspection

REPORT PREPARED BY: Richard Knatterud

BACKGROUND: ASARCO is a primary lead smelter located in East Helena, Montana. The smelter began operations in 1888. Products produced at this plant include lead bullion, copper matte and speiss, and sulfuric acid. A zinc fuming operation was discontinued in the early 1980's.

ASARCO is listed with the State Hazardous Waste Program as a conditionally exempt small quantity generator of hazardous waste. Hazardous wastes are generated from painting, parts cleaning and laboratory operations, according to Mr. Nickel.

RESULTS OF INSPECTION: The inspection began with a discussion about the regulatory status of various ASARCO activities. All of the comments contained in the paragraphs about the wastewater system, feedstock materials, dust suppression, street sweepings, and generator status are attributable to Mr. Nickel, unless otherwise indicated.

Wastewater system. Mr. Nickel indicated that the CERCLA Record of Decision had four parts to it - Lower Lake, Thornock Tank, Speiss Granulating Tank, and the Acid Plant Handling System.

The acid water reclamation facility was built in 1991. It is operated to condition water so that the water can be reused in the sinter plant. Excess water from the acid scrubber that can not be reused would go to the HDS system. The HDS system was built in 1994 and is operated intermittently. Since October 25, 1994, discharges from the HDS goes to Lower Lake. There are no other

discharges to Lower Lake at this time. In the future, Lower Lake will be bypassed such that no discharges will be received.

Previously, there were discharges from the plant water loop to Lower Lake. These discharges would have tested hazardous for arsenic. ASARCO asserts that this discharge was immune from RCRA authority due to the CERCLA shield.

Two filter presses within the HDS building generate filter cake. This cake is fed back into the furnace. The cake contains arsenic, lead, cadmium, zinc, copper and other metals. It is comparable in mineral content to virgin ores and therefore, has value as a feedstock.

Feedstock materials. Virgin ores make up roughly 95% of the ASARCO feedstock. ASARCO maintains a sampling program at the plant to ensure that the right recipe of ores and other feedstock materials are fed into the process.

ASARCO does not let materials set for more than about 30 days before they are direct charged into the process. A record of feedstocks received and smelted was shown. It was entitled, "Summary of Precious Metals". It should be noted that ASARCO's definition of precious metals as used in this record is not the same as that found in the hazardous waste regulations.

ASARCO is not paid to take wastes. Rather, they pay to receive products or by-products. ASARCO relies upon the shippers to make the proper declaration as to the regulatory status of the feedstock. Generally, feedstocks received from places like Kodak have more mineral value than virgin ores.

Arsenic that enters the process either in virgin ores or in other feedstock materials, such as arsenical dust, probably leaves the plant tied up in the copper speiss. Arsenical dust would also have more mineral value than virgin ores.

Dust suppression. Plant water was previously used for dust suppression purposes. This practice was discontinued last summer and will not be reinstituted. Plant water would likely test hazardous.

Street sweepings. ASARCO has collected street sweepings from East Helena as part of an agreement with the Air Quality Division. These street sweepings have tested hazardous. ASARCO is storing these sweepings indoors, in the ore storage building. The regulatory status of these sweepings is unclear - the percentage of lead is much lower than the lead found in virgin ores. ASARCO is investigating whether the sweepings would have values as a flux material. Presently, ASARCO purchases sand locally for use as a fluxing agent.

Generator status. ASARCO generates hazardous wastes such as cleaning solvents, paints, and laboratory wastes and manages them in accordance with conditionally exempt quantity generator requirements. It has been a couple of years since they have manifested wastes off site for disposal.

Plant tour. A plant tour was taken beginning at about 10:30 a.m. The tour included the ore storage building, the exterior storage area adjacent to the ore storage building, the sinter building, the scrubber water reclamation facility, the HDS building, Lower Lake, the blast furnace, and the drossing area.

Filter cake material was observed on the ground outside of the HDS building.

CWA REQUEST FOR INFORMATION REVIEW We also reviewed portions of ASARCO's response to the *Request for Information pursuant to Section 308 of the Clean Water Act*, dated December 6, 1994. This information was made available to us on February 7, 1995.

March 8, 1995
Date of Inspection Report

Richard Knettel
SHW Specialist